

Natural Heritage Resources Fact Sheet

Spreading Pogonia (*Cleistes divaricata*)

Description

An elegant and understated wildflower, spreading pogonia is a member of the orchid family. Its stem averages about 18 inches in height, with one tapering leaf at the base and one at the top of the stem just below the flower stalk. Orchids are known for their complex and unusual flower structures, which are often highly specialized in order to attract one particular insect species to effect pollination.

The flower of the spreading pogonia consists of three long, slender, reddish-brown to purple sepals, which join at the base of the white to pink petals and the purple lip. The petals are mostly fused, with the tips curving backwards. The long lower petal has a rose red lip with its margin crisped. Flowers appear in early June.

Habitat

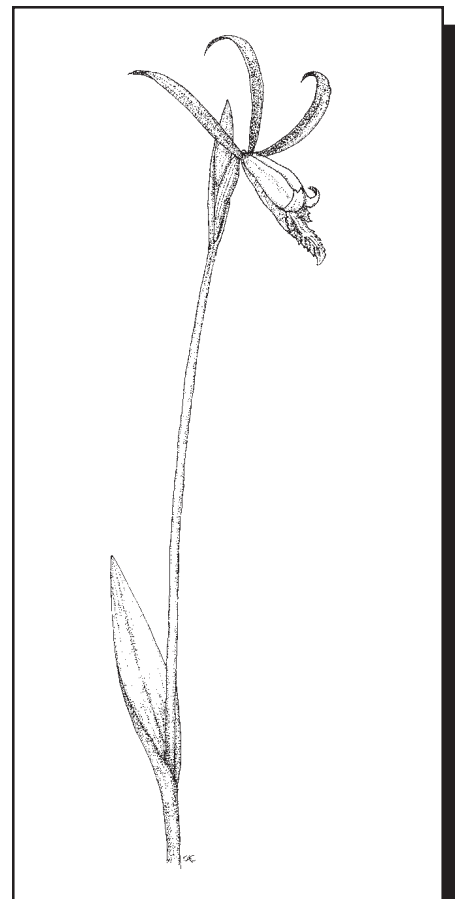
Spreading pogonia is found in wet habitats such as pocosins, damp pine barrens, seepages, savannahs and bogs. It can also occur in the sphagnum, low-nutrient portions of wet meadows, powerline rights-of-way and stream edges. Historically, the Virginia habitat of this plant was maintained by wildfire that killed off woody plant species. These fire-maintained openings were favorable to herbaceous plants that require direct sunlight.

Distribution

Spreading pogonia is known from New Jersey to Florida. It is also found in Kentucky and Tennessee. In Virginia, where it is extremely rare, spreading pogonia has been found in eight counties.

Life History

Spreading pogonia is a perennial herb. Generally, it produces a single stem annually, with older plants more likely to produce a flower and multiple non-flowering stems. Spreading pogonia reproduces both vegetatively and by seed. The brightly colored flowers attract insect pollinators, primarily bumblebees. Other species of the genus *Cleistes* are known as “mimics,” meaning they are colored like other nectar-producing plants but do not actually produce nectar as a reward for insects which visit the flower. This strategy saves the plant some energy, but since many pollinators, especially bumblebees, learn to avoid such plants, mimics risk not getting enough visits for successful pollination to take place. To overcome this limitation, spreading pogonia and its relatives produce a sticky pollen so that each visiting insect is more likely to carry away pollen to the next plant. Also, the flower stays fresh a long time to increase its chances for a visit from a bee. Successful fertilization results



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in a fruit, called a capsule, which may contain several thousand very tiny seeds.

Conservation

The primary threat to spreading pogonia in Virginia has been loss of habitat through suppression of fire. Until the last 50 years, wildfires maintained open areas required by plants which cannot compete with woody vegetation. Habitat loss may



Department of Conservation & Recreation
CONSERVING VIRGINIA'S NATURAL AND RECREATIONAL RESOURCES

For more information, contact
Department of Conservation and Recreation
203 Governor Street, Richmond, VA 23219
(804) 786-7951; <http://www.state.va.us/~dcr/vaher.html>

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also occur through alteration of water quality and water level, the latter as a result of ditching or damming of streams.

Landowners and land managers can use *best management practices* to help conserve Virginia's natural heritage resources. Landowners can also use landscaping methods which reduce both environmental impacts and landscaping costs.

DCR's Division of Natural Heritage maintains a database on the presence of our state's natural

heritage occurrences. Natural Heritage biologists, stewardship and protection staff can assist landowners with questions regarding rare species and sensitive habitats. The staff also provides information and expertise concerning conservation and management practices which help to insure that we preserve and pass on to future Virginians our rich natural heritage.

To learn more about Virginia's rare plant and animal species and rich biological communities write to the following: *Plant and Insect*

Species - Virginia Department of Agriculture and Consumer Services, Office of Plant Protection, P.O. Box 1163, Richmond, Virginia 23209; *Animal Species* - Virginia Department of Game and Inland Fisheries, P.O. Box 11104, Richmond, Virginia 23230; *Plants, Animals, or Biological Communities* - Virginia Department of Conservation and Recreation, Division of Natural Heritage, Main Street Station, 1500 East Main Street, Suite 312, Richmond, Virginia 23219.

